

1106-60-2340

Daniel Conus, Vladimir Dobric and Mackenzie Wildman*

(mackenzie.wildman@gmail.com). *Gaussian Markov Processes and Option Pricing Theory.*

I will discuss the development, testing, and implementation of a less restrictive alternative to the Black-Scholes model for pricing derivatives. By relaxing the assumption of past independence but retaining the Markovian property, we are developing a less restrictive but equally efficient model. This is achieved by replacing Black-Scholes' underlying process, Brownian motion, with a certain Gaussian Markov process. This is joint work with Daniel Conus and Vladimir Dobric. (Received September 16, 2014)